CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 80-51

AMENDING ORDER NO. 79-68

NPDES PERMIT NO. CA0037869

WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY DISCHARGERS AUTHORITY (EBDA)
CITY OF HAYWARD (Hayward)
CITY OF SAN LEANDRO (San Leandro)
ORO LOMA SANITARY DISTRICT (OLSD) &
CASTRO VALLEY SANITARY DISTRICT (CVSD)
UNION SANITARY DISTRICT (USD)
ALVARADO PLANT
IRVINGTON PLANT
NEWARK PLANT

-AND-

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY (LAVWMA)
CITY OF LIVERMORE (Livermore)
DUBLIN-SAN RAMON SERVICES DISTRICT (DSRSD) &
CITY OF PLEASANTON (Pleasanton)
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. On June 19, 1979, the Board adopted Order No. 79-68 prescribing waste discharge requirements and compliance time schedules for the above named agencies, hereinafter dischargers.

2. Since that time, amendment of the requirements have become necessary to reflect the current situation:

   a. A provision needs to be added to the Order requiring self-monitoring reports.

   b. By letter of July 25, 1980, San Leandro has requested, and staff review has confirmed, that interim operation of San Leandro's treatment plant during the period prior to attaining permanent secondary treatment capability will produce higher concentrations of effluent suspended solids and BOD_5, because of the need to bypass some existing facilities. These higher concentration discharges are reasonable considering the costs of interim correction and the temporary nature of water quality impacts.

c. By letter of September 12, 1980, EBDA cited potential equipment delivery delays and stated that further evaluation of the construction schedule indicates the need for modifications of the compliance time schedule for construction of the Hayward's fixed film reactor and clarifier. Staff review finds this reasonable because of the long lead times necessary to obtain equipment and the critical scheduling of construction so that the plant will operate efficiently during the heavy canning season.

d. By letter of September 12, 1980, EBDA has also documented that equipment deliveries will delay the initiation of discharges through the deepwater outfall; that interim facilities would be costly; and water quality impacts would be temporary.

e. By letters of October 22 and 23, 1980, EBDA has documented the start-up procedures for its interceptor-outfall system, the nature of scheduling uncertainties in placing the system into complete operation and the environmental benefits from proceeding carefully.

3. The Board is not required to comply with the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) as this is an NPDES permit and is exempt from such provisions per Section 13389 of the Water Code.

4. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharges and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

5. The Board, in a public meeting, heard and considered all comments pertaining to the discharges.

IT IS HEREBY ORDERED, pursuant to the provisions contained in Division 7 of the California Water Code and the Federal Clean Water Act and regulations and guidelines adopted thereunder that the following amendments are made a part of Order No. 79-68:

1. Amend Provision D-4 to read:

"EBDA shall comply with the following time schedule to assure compliance with A.2 (10:1 prohib.), B.2 (res. cl.), and C.2.d (non-dissociated ammonia):

Task	Compliance Date	Report of Compliance Due
1. Initiate continuous discharge of LAVWMA effluent through the outfall	January 5, 1981	January 15, 1981
2. Intercept San Leandro, Oro Loma, Hayward, Alvarado, Irvington and Newark flows sequentially and discharge through the outfall	January through May 1981	January 15, 1981 February 15, 1981 March 15, 1981 April 15, 1981 May 15, 1981 June 15, 1981
3. Demonstrate full compliance	July 1, 1981	July 15, 1981"

2. Add Provision D.10 to require:

"10. The dischargers shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer."

3. Amend only the following items in Attachments II through VI to read:

"The discharger shall comply with the following time schedule to assure compliance with Prohibition A.2 (10:1 dil.), and Receiving Water Limitations C.2.d. (un-ionized ammonia):

Discharger	Attachment	Item	Compliance Date	Report of Compliance Due
San Leandro	II	B-3	July 1, 1981	July 15, 1981
Hayward	III	B-7	July 1, 1981	July 15, 1981
Union-Alvarado	IV	B-3	July 1, 1981	July 15, 1981
Union-Newark	V	B-3	July 1, 1981	July 15, 1981
Union-Irvinton	VI	B-3	July 1, 1981	July 15, 1981"

4. Amend the Items B-3 and 4 in Attachment IV (Union-Alvarado) to read:

"The discharger shall comply with the following time schedule to assure compliance with Effluent Limitations B.1.a. (BOD), B.1.b. (Sus. Sol;), B.1.c. (Grease and Oil), B.1.d. (Sett. Matt.), B.1.f. (Toxicity), B.1.g. (85% remov.), B.4 (Toxicants), Receiving Water Limitations C.1.a. (foam), C.1.c. (alt. of temp.), and C.2.a. (DO)

Task	Compliance Date	Report of Compliance Due
Complete construction of treatment plant and achieve full compliance	July 1, 1981	July 15, 1981"

5. Change Attachment II (San Leandro) requirement, paragraph A.3 to require:

"3. BOD and Suspended Solids; as discharged to November 2, 1981, only:

Constituent	30 Day Avg. mg/l
BOD	75
Suspended Solids	75

The following mass emission limitations shall also apply as follows:

Mass Emission Limit in lbs/day = Concentration limit in mg/l X 8.34 X Actual Flow in mgd Averaged Over the Time Interval to which the Limit Applies."

6. Change Attachment III (Hayward) to require:

A. Amend requirement A-4 to read:

"BOD and Suspended Solids; as discharged:

Period From	Period To	Max. BOD mg/l	Max. SS mg/l	
*11-1-80	1-5-81	50	110	(2)
1-6-81	5-31-81	50	180	(2)
6-1-81	10-31-81	70	200	(1)
11-1-81	5-31-82	50	180	(2)
6-1-82	6-30-82	70	200	(1)
7-1-82	10-31-82	39	200	(1)
11-1-82	5-3-83	36	75	(2)

(1) Canning Season (2) Non-Canning Season

*Jointly with LAVWMA"

B. Amend requirement B. (Compliance Time Schedule) as follows:

"B. The discharger shall comply with the following time schedule to assure compliance with Effluent Limitations B.1.a. (BOD), B.1.b. (Suspended Solids), B.1.d (Settleable Matter), B.6 (85% removal):

Task	Compliance Date	Report of Compliance Due
1. Notice to Proceed to contractor for FFR/C	January 5, 1981	January 15, 1981
2. Status report on construction; complete design FBR unit and Misc. Improvements	July 1, 1981	July 15, 1981
3. Award construction contracts, FBR and Misc. Improvements	January 1, 1982	January 15, 1982
4. Complete construction of FFR/C and commence operation	July 1, 1982	July 15, 1982
5. Progress report	November 1, 1982	November 15, 1982
6. Complete construction	May 3, 1983	May 17, 1983
7. Full compliance	June 30, 1983	July 14, 1983"

7. Amend Provision D.3., footnote (4) to read:

"(4) OroLoma's Permit (Order No. 77-75) will remain in effect until the discharge is diverted into the EBDA system, or until 7-1-81, whichever occurs sooner."

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 4, 1980.

FRED H. DIERKER
Executive Officer

Attachment:
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AMENDED
SELF-MONITORING PROGRAM
FOR

East Bay Dischargers Authority (EBDA), City of Hayward (Hayward), City of San Leandro (San Leandro), Oro Loma Sanitary District (OLSD) & Castro Valley Sanitary District CVSD), Union Sanitary District (USD) Alvarado Plant, -And- Livermore-Amador Valley Water Management Agency (LAVWMA), City of Livermore (Livermore), & Dublin-San Ramon Services District (DSRSD) Alameda County

NPDES NO. CA 0037869

ORDER NO. 80-51

CONSIST OF

PART A, DATED JANUARY 1978

AND

PART B

AND

BOTTOM SEDIMENT SAMPLING AND
REPORTING GUIDELINES (SEPT. 1974)

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT (ALL TREATMENT PLANTS)

Station	Description
A-1	At any point in the individual treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT (ALL TREATMENT PLANTS AND OUTFALL)

Station	Description
E-001	At any point in the individual treatment plant facilities at which adequate disinfection has taken place and just prior to where the individual facility has lost control of its effluent either to LAVWMA or EBDA facilities (Upon approval of the Executive Officer may be the same as E-002).
E-002	At any point in the EBDA common outfall at which all waste tributary to that outfall is present.

C. RECEIVING WATERS (SAN FRANCISCO BAY)

Station	Description
C1, C2, C4	Located per station 1, 2, 4, respectively, as shown on Figure 1.
C-R	Located at station 3 as shown on Figure 1.

D. LAND OBSERVATIONS (ALL TREATMENT PLANTS AND DECHLORINATION FACILITY)

Station	Description
P-1 through P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the individual, LAVWMA and EBDA treatment facilities. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES (ALL TREATMENT PLANTS AND OUTFALL)

Station	Description
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations or collection system.

F. BOTTOM SEDIMENTS

Station	Description
D1, B7, B10, B12, B14	Locations as shown on Figure 2.

G. MISCELLANEOUS REPORTING

Upon commencement of discharge to the EBDA common outfall compliance with receiving water and effluent residual chlorine limits shall be demonstrated by EBDA reports and as required by appropriate compliance time schedules.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given as Table I.

III. MODIFICATION OF PART A, DATED JANUARY 1978 (with amendments)

Additions: Add Section G: Intent/Procedures

"G. Intent/Procedures

1. This Board considers EBDA to be the agency primarily responsible for the combined waste discharge and the discharge of its member agencies to the common outfall. Therefore, in the administration and enforcement of this monitoring program, this Board will first pursue its administrative and/or legal remedies with EBDA. If, however, the Board finds that EBDA does not have the ability or willingness to take appropriate action, or if special, unusual circumstances arise that indicate that direct action should be taken against a member agency or agencies, this Board may pursue appropriate action against such member agency or agencies.

2. It is the intent of the Regional Board to allow EBDA members to demonstrate compliance at the EBDA outfall and to combine monitoring reports to decrease reporting. Upon submission by EBDA of a proposal satisfactory to the Executive Officer this will be allowed."

I, Fred H. Dierker, Executive Officer, hereby certify that the foregong Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 79-68 as amended by Order No. 80-51.

2. Has been ordered amended by the Executive Officer on the date shown below and shall become effective upon commencement of discharge to the EBDA common outfall. All other monitoring programs for the individual facilities remain in effect until discharge commences to the EBDA common outfall.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachments:
Table I
Figures 1 & 2

Date Ordered 11/14/80

NOTES TABLE I

(1) Percent removal (effluent vs influent) shall also be reported.

(2) Individual treatment plants shall maintain and report chlorine dosage data. Only EBDA shall report chlorine residual.

(3) Oil and grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day, with each grab being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample.

If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

(4) At the individual treatment plants fish toxicity samples may be dechlorinated prior to testing. At the EBDA Marina Dechlorination station, the sample shall be taken after dechlorination.

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-002			All Sta C	All Sta P	O All Sta	B All Sta		
TYPE OF SAMPLE	C-24	G	C-24	cont	G	C-24	cont	G	O	O	BS		
Flow Rate (mgd)	D			D			D						
BOD, 5-day, 20° C (mg/l & kg/day) (1)	5/W		5/W										
Chlorine Residual & Dosage (mg/l & kg/day) (2)			D		H or Cont								
Settleable Matter (ml/1-hr. & cu. ft./day)		D											
Total Suspended Matter (mg/l & kg/day) (1)	5/W		5/W										
Oil & Grease (mg/l & kg/day) (3)		2/M											
Coliform (Total) (MPN/100 ml) per req't		3/W						2/M					
Fish Toxicity, 96-hr. (4) % Survival in undiluted waste			M										
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity, NTU								2/M					
pH (units)		D						2/M					
Dissolved Oxygen (mg/l and % Saturation)								2/M					
Temperature (°C)		D						2/M					
Apparent Color (color units)								2/M					
Secchi Disc (inches)								2/M					
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)								2/M					
Arsenic (mg/l & kg/day)			3M										
Cadmium (mg/l & kg/day)			3M										
Chromium, Total (mg/l & kg/day)			3M										
Copper (mg/l & kg/day)			3M										
Cyanide (mg/l & kg/day)			3M										
Silver (mg/l & kg/day			3M										
Lead (mg/l & kg/day)			3M										

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001			E-002			All C Sta	All P Sta	All O Sta	All B Sta		
TYPE OF SAMPLE	C-24	G	C-24	cont	G	C-24	cont	G	O	O	BS		
Mercury (mg/l & kg/day)			3M										
Nickel (mg/l & kg/day)			3M										
Zinc (mg/l & kg/day)			3M										
PHENOLIC COMPOUNDS (mg/l & kg/day)			3M										
All Applicable Standard Observations		D						2/M	2/W	E			
Bottom Sediment Analyses and Observations											3M		
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)			3M										
Non-dissociated NH_4OH (mg/l)								2/M					

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

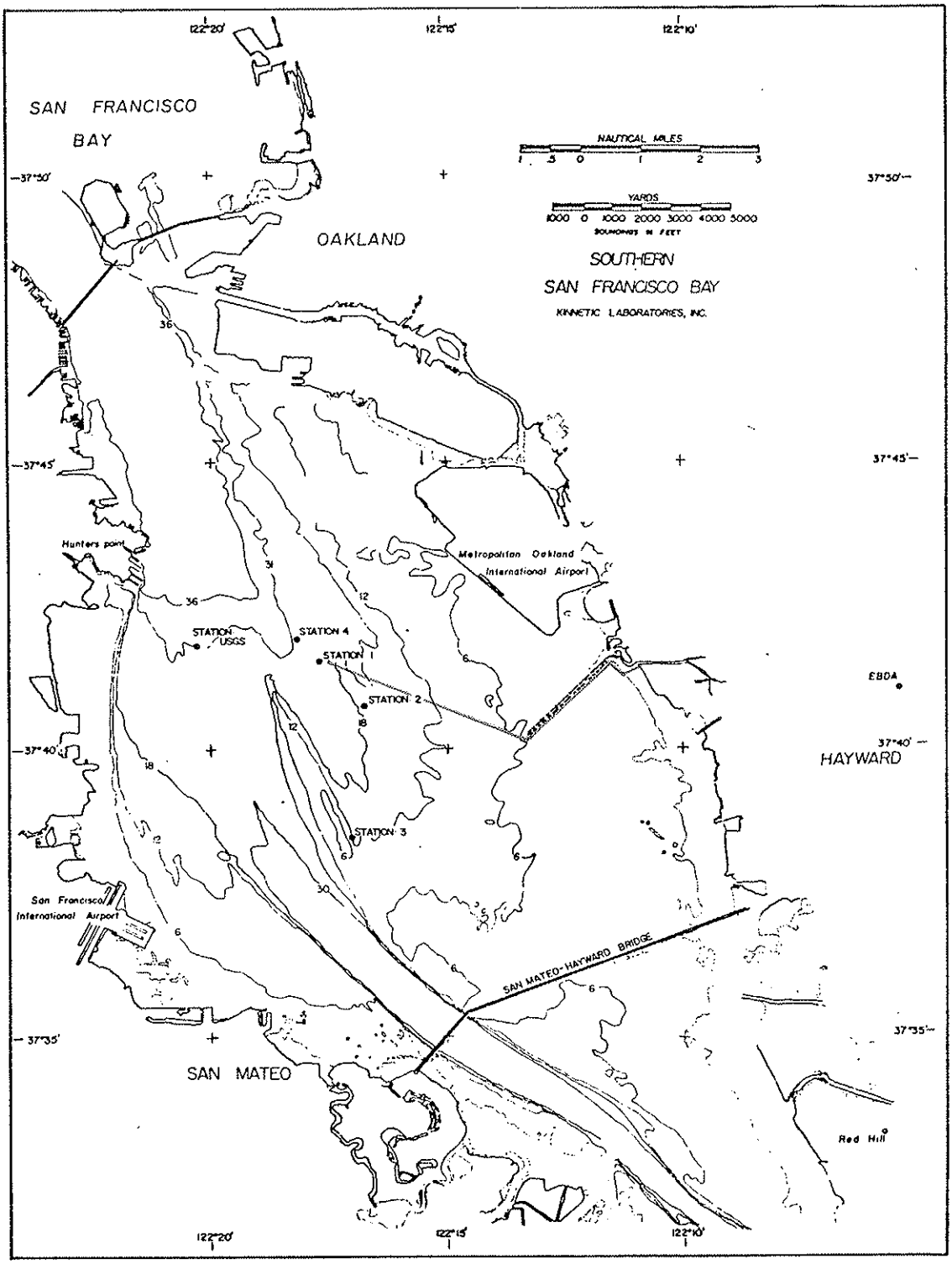
I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous



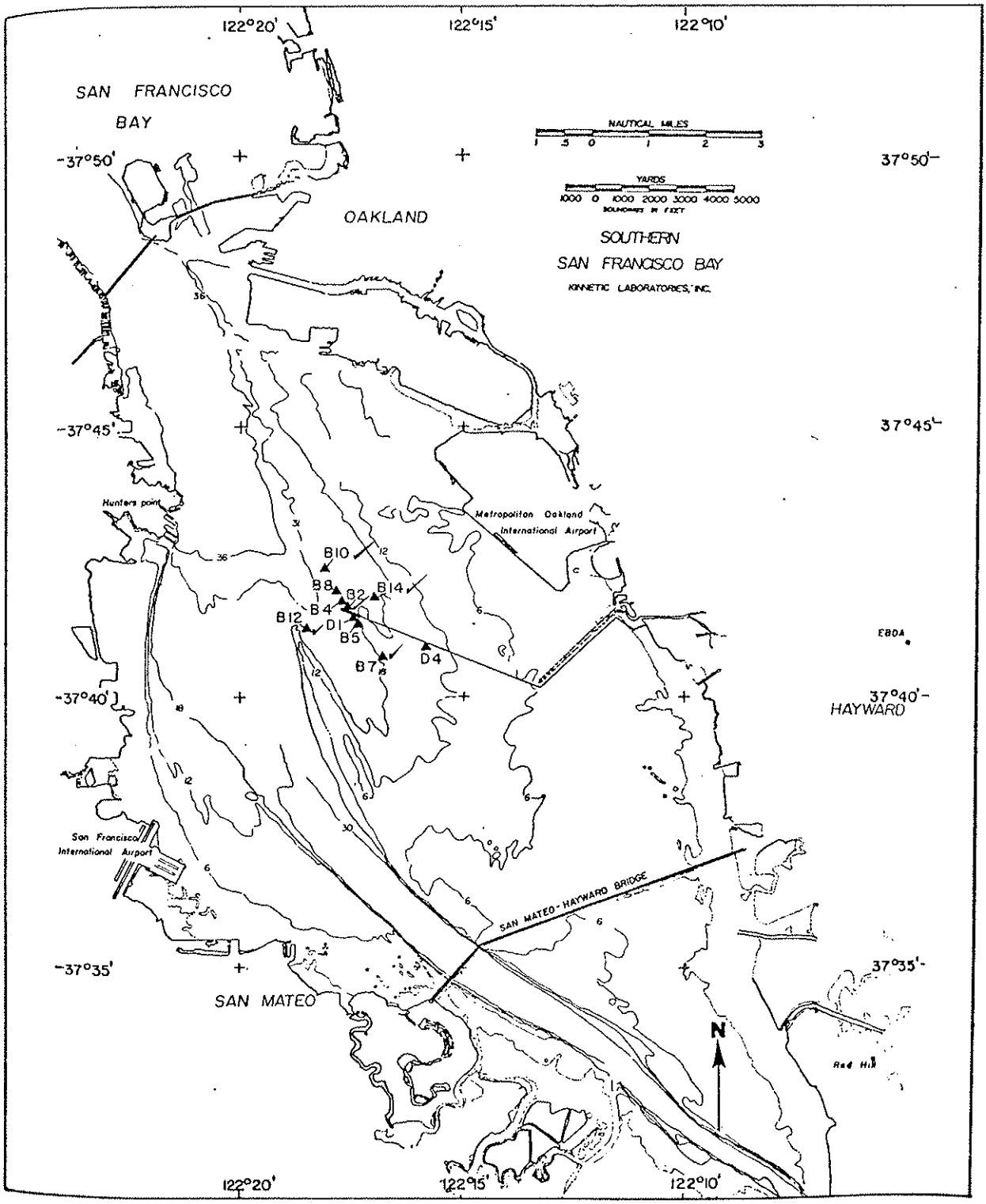
STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FIGURE 1

WATER QUALITY STATIONS

RECEIVING WATERS

DRAWN BY:	DATE: Aug80	DRWG. NO.



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FIGURE 2

BENTHIC SAMPLING STATIONS

DRAWN BY:	DATE: Aug. 80	DRWG. NO.

BOTTOM SEDIMENT SAMPLING AND REPORTING GUIDELINES
SEPTEMBER 1974

For macroinvertebrate samples the following equipment and procedures shall be observed:

1. The benthic grab sampler employed shall be one of the following: Ponar, Peterson, Smith-McIntyre or 12 x 12 Ekman (when all sampling stations are in shallow water and sediment composition is ooze throughout sampling area). A core sampler may be employed if special conditions warrant but approval is necessary from the Regional Board.

2. Each benthic grab (replicate) shall be reasonably uniform; that is, 6 to 8 liters of sediment per grab. In the field, each grab sample shall be screened using a 30 mesh sieve and preserved in 5% formalin. Sediment characteristics shall be recorded for each grab. Pertinent collection data shall be placed on internal and external labels for all grabs preserved.

3. In the laboratory, all grabs preserved in the field shall be transferred into 70% ethanol within a week. When large numbers of organisms are present, subsampling may be employed. The sample should be thoroughly mixed and distributed over a shallow pan. A divider (i.e., equal quarters) is placed in the pan. The aliquot to be used, regardless of the number of organisms, should never be smaller than one-quarter of the grab sample. Generally, it will be necessary to count all of the organisms in no less than three liters of the sediment collected in each grab sample. When subsampling is not employed during the first sampling period of the year, because of the low number of organisms in the benthos, then subsampling should not be conducted in the other sampling periods for that year if at all possible. If very large numbers of organisms are present in future samples, then subsampling may be conducted, but the subsample should never be smaller than one-half of the grab sample. The methodology used should be consistant and should be guided by expert professional judgment. That part of the sample not selected for sorting shall be saved for future reference as well as those specimens sorted. Aliquot sampling, although not the most desirable alternative, is preferable to compositing all grab samples. The subsampling prescribed should provide for some reduced costs to the discharger.

Reporting Procedures for Benthic Macroinvertebrates

All Reports shall include the following:

1. Number of invertebrates per square meter and per liter of sediment of each grab sample and the mean number of invertebrates per square meter and per liter of sediment per station. The actual number of individuals counted in each grab sample and the actual volume of sediment collected in the grab sample shall be listed.

2. Identification of polychaetes, amphipods, and molluscs to species and enumeration of each species for each grab sample.